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Cover: Alexander Vargas, a 12th grader at Walter Biddle Saul High School of Agricultural Sciences in Philadelphia, waters chrysanthemums as part of a class in greenhouse management. Students sell flowers, which they raise from cuttings, to learn about marketing. (Photo by Fred Bubb.)

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Comments from the SCS Chief:

Education Is the Key

ONE THING IS TRUE for all of us–we learn best by doing. That's why it's so important that students in school do things like planting trees, grass, flowers, and vegetables; testing water quality; sampling soil; monitoring weather; creating wildlife habitat; and picking up litter.

Young people need enthusiastic teachers and community leaders like this year's winners in the National Association of Conservation Districts/Deutz-Allis Corp. Conservation Education Awards Program. These winning teachers and conservation districts are helping young people develop a conservation ethic that will guide them throughout their lives in making informed decisions about natural resources.

But, good conservation education doesn't just happen. It takes a lot of hard work and careful planning. At the local and State level, Soil Conservation Service employees, conservation district employees, and Earth Team volunteers are working with elementary and secondary schools and colleges and universities. They're providing technical assistance with outdoor classrooms, field tours, instructional materials, and much more. We can be proud of what we're doing in these areas.

Conservation education includes working with adults, too. An example is our direct mail campaign to alert owners of highly erodible land that they need a conservation plan by December 31, 1989, in order to retain eligibility for U.S. Department of Agriculture (USDA) program benefits.

At the national level, SCS is promoting conservation education efforts among national and international organizations such as the Boy Scouts, Girl Scouts of the U.S.A., and the National Association of Biology Teachers. These are all vital links in our total conservation education effort. Also, at the national level, the U.S. Department of Agriculture and the U.S. Department of Education are cooperating to work more closely with vocational agricultural schools and FFA in providing students more hands-on experiences in resource management.

The ultimate goal of the conservation education efforts of SCS and conservation districts is more conservation on the land. Only citizens who understand and appreciate the real value of soil, water, and wildlife can make that happen. We need citizens willing to make a personal and professional commitment to preserving and protecting natural resources today and into the future. I believe that conservation education is a positive step in the right direction.

Learning by Doing

New Co-op Program Begins In Philadelphia

Returning from a field exercise in land leveling are, from left, Andrew Arbiz, Ronald Jordan, Christopher Davis, and Richard Arwood, all 11th grade students at the Walter Biddle Saul High School of Agricultural Sciences in Philadelphia, Pa. (Photo by Fred Bubb.)

STUDENTS AT THE Nation's largest agricultural high school will soon be able to obtain part of their education by working for the Soil Conservation Service of the U.S. Department of Agriculture.

SCS and the Walter Biddle Saul High School of Agricultural Sciences in Philadelphia, Pa., are establishing a cooperative education program in which students will receive both pay and academic credit for working for SCS. Students accepted into the program will work mostly during summers at SCS field offices in Pennsylvania and New Jersey and at the agency's National Technical Center in nearby Chester, Pa.

Saul High School, which is part of the Philadelphia public school system, has an enrollment of about 640 boys and girls from Philadelphia's inner city. Under the co-op program, working for SCS will be considered supervised vocational experience–much the same as working on the school's two farms.

"The kids feel very positive about this," said Jim Kerr, school principal, in signing the agreement Sept. 23 with SCS Chief Wilson Scaling in Washington. "We've already had several inquiries on how to apply."

"This is a quality school with quality students," said Scaling. "I hope we can fill your needs. I'm sure you'll help us fill ours."

The school's farming operation includes beef cattle, pigs, sheep, hay and pasture, and the last dairy herd in the city of Philadelphia. It also has a nursery, two greenhouses, a floral design shop, several mechanic's shops, and a one-hole

golf course. Conservation practices include contour farming and grassed waterways. The students do all the farm work and maintenance work except those tasks that require a licensed professional, such as electrical code work and veterinary work.

"We sell everything we produce," said Robert Holley, one of the school's two agricultural coordinators. "But we sell it in bulk on the wholesale market and are very careful not to compete with commercial interests. We just want the students to learn."

Scaling said he was so impressed with the school after touring it this past April that he returned to Washington and challenged his staff to develop the co-op program. "We need to get good students interested in conservation," Scaling said. "We've always been able to reach them in college, but programs like this will help us to reach them in high school, too."

Although the Saul School serves an urban area, school officials say about four times as many students apply to attend as can be admitted and opportunities are good for its graduates. "You can hardly go into a greenhouse, pet shop, or park management office in Philadelphia without running into one of our students," said Holley. "and about 50 percent of our students go on to college or another school after graduation."

Paul D. Barker, associate editor, *Soil and Water Conservation News,* SCS, Washington, D.C.

The program started 5 years ago with three schools. Today, all the Hampshire County public schools and the West Virginia Schools for the Deaf and Blind participate in the program.

Science Lab Program Grows

"EACH YEAR THE outdoor Science Lab program is getting better and better," said Bob Ensor, the Soil Conservation Service's area conservationist in Romney, W. Va. The program started 5 years ago with three schools. Today, all the Hampshire County public schools and the West Virginia Schools for the Deaf and Blind participate in the program.

Steve Bailes, coordinator of the outdoor Science Lab and sixth grade teacher at Capon Bridge Elementary School, feels the program has provided hundreds of students with a strong background in natural resource conservation. The addition of deaf and blind students gives them an opportunity to function in the mainstream.

The cooperation between public agencies and private industry has greatly improved. The West Virginia Education Fund provided stereo microscopes for a lab class of handicapped students. Public and private forestry departments as well as SCS have provided assistance to the outdoor Science Lab.

Local experts are on hand to give instruction in areas such as stream ecology, wildlife managment, soils and soil erosion, forestry, and hydroponic greenhouse operation. Ensor said, "The instructors have better tailored information to the students' school curriculum, which makes for a smooth and coordinated program."

Kim M. Berry, public affairs specialist intern, SCS, Washington, D.C.

At left in photo, Debbie Kline, a teacher at the West Virginia School for the Deaf, explains to students how hydroponic lettuce is grown. Hydroponic crops are grown in water and fertilizer instead of soil.

After 2 years, this cooperative effort has involved a million people and more than 10 million hours of study and creative activity.

Telephone Pioneers Work With Schools

FOR THE PAST few years, the Telephone Pioneers of South Carolina, an organization of telecommunications employees, has sponsored environmental projects for schools across the State. In a joint effort with the South Carolina Department of Education, the Pioneers have helped schools create outdoor learning centers, backyard wildlife habitats, and science and art projects. And a network has been developed to distribute films and tapes on conservation subjects to schools statewide.

To support this effort, the Pioneers obtained commitments from the State's Forestry Commission, Land Resource Commission, and Wildlife and Marine Resources Commission, and the State office of the U.S. Department of Agriculture's Soil Conservation Service. Commitments were also made by South Carolina's Wildlife Federation, Science Council, garden clubs, parent-teacher associations, and conservation districts. SCS and the National Wildlife Federation have provided support at the national level. Branches of the U.S. military have also been involved, along with several major commercial firms. Local businesses have also pitched in.

After 2 years, this cooperative effort has involved a million people and more than 10 million hours of study and creative activity. It has helped schools to create nature trails, weather stations, gazebos, observation centers, nature museums, wildlife preserves, ponds, pools, curriculum and video libraries, and parks with minimal expense. School districts have trained staffs on Project Wild and Project Learning Tree, and more than 200 outdoor conservation curriculum centers have been created.

Encouraged by the success of this effort, the Pioneers are now creating a comprehensive administrative guide for educating in the natural environment, accompanied by a kindergarten through high school curriculum that includes all academic disciplines. The guide will focus on the practical considerations necessary for a school to organize itself and draw on available community resources to establish an outdoor learning center. Plans are for publication of the guide and curriculum in time for the 1989-90 school year.

Virginia Able, environmental project director, South Carolina Chapter of the Telephone Pioneers, Columbia, S.C

Students read precipitation gauge as part of outdoor learning activities sponsored by the Telephone Pioneers of South Carolina.

"I was impressed at how enthusiastic the students were," Williams said. "They had taken the plight of the trees to heart and were serious about their work."

Students Rally to Save Playground

PLAYGROUNDS have it rough, anyway, with generations of children stomping on the grass and making trails all over them. But the playground at Western Oaks Elementary School in Oklahoma City, Okla., had real erosion problems. After a particularly rainy season, about 20 oak trees appeared to be standing on stilts, with 2-3 feet of their root systems exposed.

A neighbor who lived near the school became concerned about the trees and called the Oklahoma County Conservation District to see what could be done. The district staff looked into the problem and went to the principal to see if the school would be interested in involving students in controlling soil erosion on the playground.

Such a project would complement the curriculum sixth grade science teacher Kelly Colclasure was following. Colclasure, with help from the Oklahoma County Conservation District and Soil Conservation Service Soil Conservationist Cornell Nash, introduced four science classes to the importance of soil and how soil erosion on farmland affects the world's ability to produce food. The students practiced making soil from rocks and compared erosion on bare and vegetated soil. They used their math skills to determine that the equivalent of two classrooms full of soil had washed away from the playground.

An action plan was drawn up, and a week later the students helped construct a barrier of hay bales to redirect water away from the vulnerable trees. They packed soil around the hay bales and planted grass seed and covered it with straw to keep it from blowing or washing away.

Oklahoma County Conservation District Board Chairman Allan Williams and several other board members were on hand to help the students.

"I was impressed at how enthusiastic the students were," Williams said. "They had taken the plight of the trees to heart and were serious about their work."

One of the students summed it up for the others: "They told us they would have to take these trees out of the playground in 3 years if we didn't try to help save them. We did it because the trees are nice on the playground, and there will be a lot of kids after we're gone who will like to play here."

The students police the newly renovated playground area and have planned other conservation measures, such as planting more grass seed this spring. After hearing about the project, another county school has called the conservation district for help with involving students in solving an erosion problem on its schoolground.

Laura Pollard, district manager, Oklahoma County Conservation District, Oklahoma City, Okla.

SCS Soil Conservationist Cornell Nash works with students at the Western Oaks Elementary School in Oklahoma City, Okla., on placing hay bales to direct runoff away from exposed tree roots. Students also planted grass seed to help control soil erosion at the site.

The photographs show Morrow's farm before he installed his current conservation practices and afterward.

A View on Conservation

BAKER'S BLUFF scenic overlook on the Natchez Trace Parkway, which runs through Maury County, Tenn., offers a good view of "Buddy" Morrow's farm. Morrow is a conservation farmer who uses conservation tillage, filter strips, and grassed waterways. He has also restored his pastureland.

Chris Moyers, SCS district conservationist in Maury County, said, "We thought it would be a good idea to put up some kind of display at the overlook to explain the soil and water conservation practices Morrow is using. Nearly 15 million people use the parkway every year, and the display would be a good way to reach those who stop at the overlook with a soil and water conservation message." The "Caring for the Land" pictorial display was unveiled in December 1988.

Jeanne Eastham, SCS public affairs specialist in Nashville, Tenn., designed the display and took many of the photographs used for it. The photographs show Morrow's farm before he installed his current conservation practices and afterward. Brief explanations of the practices accompany the photographs.

The display was a joint effort by the National Park Service, the Maury County Soil Conservation District, and the Soil Conservation Service.

Kim M. Berry, public affairs specialist intern, SCS, Washington, D.C.

Display board at the Baker Bluff Scenic Overlook on the Natchez Trace Parkway in Maury County, Tenn., explains how conservation practices on the Morrow farm, below, control soil erosion and protect water quality. Nearly 15 million people use the parkway every year.

Here is to

Conservation Education Award Winners

First Place Teacher-of-the-Year

STUDENTS at the North Pole Middle School in Alaska are learning what it's like to be part of a national snow survey network. Students are using real snow survey equipment to collect and record climatic data to be published in the monthly Snow Survey Bulletin of the Soil Conservation Service.

For her part in starting the snow survey project at the school, as well as other activities, seventh grade teacher Gerry Young has been named first place national teacher-of-the-year for 1988 in the annual National Conservation Education Awards Program sponsored by the National Association of Conservation Districts (NACD) and the Deutz-Allis Corp.

Students at the North Pole school are using both manual and automatic equipment in taking snow survey measurements. Two-member teams with a snow tube and scale take manual surveys at one specific area near the school. There is also an automatic SNOTEL (a network of automated radiotelemetry snow survey data collection equipment) site close to the school that is equipped with a snow pillow, a pressurized pad that weighs the snow. The students also take temperature readings. Young works with the students and sends the data they collect to SCS in Alaska. The students are also sampling snowpack acidity. Since North Pole Middle School began keeping snow survey data, other schools in Alaska have begun doing the same thing–even those in remote village areas. (See article below.)

Young's other accomplishments in conservation education include the outdoor laboratory she developed at the school and her cross-curriculum approach to teaching science and conservation. With assistance from other teachers, scientific experts, community lead-

Students Join Snow Survey Team

Gerry Young, 1988 national teacher-of-the-year (at left in photo), helps her students at the North Pole Middle School in Alaska weigh a snow tube to determine the amount of water in the snowpack.

SCIENCE TEACHERS IN Alaska have a powerful, new teaching tool. Snow courses and climate stations set up on or near schoolgrounds by the Soil Conservation Service, in cooperation with local conservation districts, have turned students at seven schools in Alaska into official snow surveyors.

Students at two high schools, one middle school, three elementary schools, and one rural school in Chuathbaluk, a remote, native village, will be submitting data to SCS during the 1988-89 season. Students read their precipitation storage gauges every schoolday and plot the accumulated precipitation on a large graph that also shows normal precipitation. The students can track how the current season compares to normal precipitation.

The school program began when an SCS district conservationist did a snow survey demonstration for a sixth grade

the Winners!

ers, and parents, Young's students have categorized 160 trees in the Northern Boreal Forest where the school is located, determining the age of the trees and noting their growth patterns; they have studied aquatic life in the stream that runs across the schoolground; and they have studied beavers as they work, studying the effect of a newly created dam on the insect population. This year, Young and her students plan to try to reestablish the salmon that used to hatch in the stream "back when the pioneers came."

Young has been teaching for 25 years and has been at the North Pole Middle School for the last five. "Wherever I have taught, I've always taught conservation," Young said. "I think, with a species disappearing daily, we need to learn all we can now."

Young will receive $1,000 and an expense-paid trip to the NACD convention in Salt Lake City, Utah, February 5-9, 1989.

In foreground, Gerry Young, a teacher at the North Pole Middle School in Alaska, has been named the first place national teacher-of-the-year in the NACD/Deutz Allis Corp. conservation education awards program.

class in Homer, Alaska. When several other schools requested the same demonstration, SCS Snow Survey Supervisor George Clagett got an idea.

"It dawned on me there was some potential here for successful collection of data, with a high level of interest on the part of the collectors," said Clagett.

Alaska soil and water conservation districts provided strong support for the effort, and as requests came in, the schools were set up with a snow course and/or a precipitation storage gauge, depending on the level of interest at the school.

"At first, we were only helping provide the schools with a teaching tool," Clagett continued. "Then we realized the students liked being part of a scheduled national network. The data is as accurate as any we collect, so we started publishing it in the monthly Snow Survey Bulletin. This has really tended to keep the students' interest high."

"Students are learning about climate and how it relates to their everyday lives," said Gerry Young, a teacher at the North Pole Middle School, one of the schools participating in the project. "Children learn best by doing. My whole class participates in monitoring the weather, and student crews are making snow surveys according to SCS methods." Young sends the manual snow course measurements, along with automated snow course readings, to SCS. Young has been named the first place national teacher-of-the-year for 1988 in the NACD/Deutz-Allis Corp. National Conservation Education Awards Program.

Another participating teacher, Bob Carnahan at Gakona Elementary School, said that the snow survey activity is a terrific hands-on learning experience. "Even more valuable, though, is that it teaches students responsibility," he said.

Clagett said that Alaska has always suffered from a sparse network of snow survey data collection points, and schools in towns and villages throughout Alaska are all potential new data points. According to Clagett, Alaskan schools networking as part of the SCS snow survey program will benefit scientists and researchers throughout the State and are providing a positive, ongoing outdoor classroom experience for students.

Burton L. Clifford, State conservationist, SCS, Anchorage, Alaska.

"My philosophy of teaching science is that nothing beats experiencing it," said Parsick. "You can memorize a lot from books and classroom discussion, but when you go to an outdoor classroom and touch, see, hear, and analyze, it makes a big difference."

Second Place Teacher-of-the-Year

"My interest in the environment and conservation was piqued at two South Carolina Science Council workshops," said Denise Parsick, who at the time was a sixth grade teacher at the Broad River Elementary School in Beaufort, S.C. "Workshop leaders emphasized outdoor laboratories and classrooms, and I realized that our school already had some of these things in place."

Parsick enlisted the help of her students, fellow teachers, and members of the community in reclaiming a long-neglected nature trail on the 25-acre schoolground. To raise money for materials such as railroad ties for controlling erosion along the trail and wood for projects such as building birdhouses, Parsick wrote grant proposals and headed up a recycling center at the school for newspaper and aluminum cans.

For her efforts in leading the reclamation of the nature trail and other activities, Parsick was named second place national teacher-of-the-year in the NACD/Deutz-Allis Corp. awards program. Parsick has also developed a teacher workshop curriculum, including a 15-page activity guide, which emphasizes soil and water conservation.

"My philosophy of teaching science is that nothing beats experiencing it," said Parsick. "You can memorize a lot from books and classroom discussion, but when you go to an outdoor classroom and touch, see, hear, and analyze, it makes a big difference.

"For example, when we are studying decomposition, my students and I can go to the woods and find a rotting log," Parsick said. "Then I show them that not only does the log have its own built-in community, but that it is also part of a much larger community that involves generating oxygen, making soil, growing new trees–the entire cycle. They watch. They record. They analyze. They gain a respect not only for nature, but also for each other."

Said Parsick, "I also volunteer each year with the university to help move loggerhead sea turtle eggs. It's usually a 2-day trip and I try to take at least one student besides my own children. Nothing teaches you about the value of ecosystems and the environment quite like handling something as fragile as an egg and knowing you are making a difference just because you are there moving it to safety."

Parsick recently received her masters degree in educational administration at the University of South Carolina. This past fall she came to Broad River Elementary not as a classroom teacher but as the assistant principal.

"I was apprehensive at first about losing my classroom," Parsick said. "However, I've discovered that in my new position, I'm able to do even more with many teachers and students. I'm excited about where it will lead."

Parsick will receive a $500 cash award.

Sixth grade teacher Denise Parsick (at left in center of photo) works with Broad River Elementary School students in Beaufort, S.C., in determining the age of a tree. Parsick has been named 1988 second place national teacher-of-the-year.

The district's education committee, which includes a science teacher, an advertising/public relations professional, and a homemaker-Girl Scout leader have planned programs appealing to both adults and young people.

First Place District-of-the-Year

First place national district-of-the-year is the Riverside-Corona Resource Conservation District (RCD) near Riverside, Calif. The district won first place for its innovative conservation education programs for both elementary and secondary school students as well as adults. The district's goal is to make learning fun, exciting, and interesting for all age groups.

"Soil basics can be a boring subject," said District Manager Shelli Lamb. "You'll lose your audience if you don't present the materials in an interesting way."

The district has developed a wide variety of tools for teaching natural resource education: a curriculum guide, The World Beneath Your Feet, which contains a variety of poems, slide shows, and hands-on activities directed toward preschool through second grade students; Outdoor Classroom, which supplements the soil curriculum; and Project Earth Probe, designed for use in the California State Citrus Historical Park, which includes trails where participants can learn about plants, wildlife, and water.

The Riverside-Corona RCD also sponsored a science fair with local high schools and a soils quiz that was completed and taken home to share with parents. A recent FFA Field Day drew 427 participants.

Last year, the RCD distributed 25,000 conservation publications and ran a photo contest to introduce the general public to local resource conservation problems.

At a science fair for elementary school students, Diana Ruiz, education development coordinator for the Riverside-Corona RCD (at left in photo), leads discussion on different soil layers. The RCD was named second place national district-of-the-year.

Second Place District-of-the-Year

Northumberland County Conservation District near Sunbury, Pa., was named second place national district-of-the-year. The district's education committee, which includes a science teacher, an advertising/public relations professional, and a homemaker/Girl Scout leader, have planned programs appealing to both adults and young people.

"One of the reasons I feel we placed so high was because we've designed so many programs for adults," said District Manager Bob Jacobs. "We have an active board of directors that places a great deal of emphasis on adult programs."

Northumberland County holds an annual winter conference that focuses on conservation-related topics, and last winter, 130 farmers participated. This summer, 182 farmers participated in "twilight meetings," where conservation was discussed. The district sponsors no-till demonstration plots and water clinics on ground water contamination, water testing, and water treatment.

In 1987, the district started a nutrient management demonstration plot to show the growth rates of plants under different applications of both manure and chemical fertilizers. To reach absentee landowners with information on managing their highly erodible land, the district recently started a rented-land project. The effort includes publishing a newsletter directed to landlords to tell them about the conservation planning assistance available to them.

The Envir-olympics in Pennsylvania has caught on in other States, and the first national "Envirothon," was held this past year.

In addition to its programs for adults, the Northumberland Conservation District worked with 34 elementary and secondary schools and various youth groups in the area. They presented 64 environmental programs reaching 5,400 students. These included National Wildlife Week and Arbor Day activities and a poster and speech contest. The district worked with eight Scout and 4-H groups in planting 8,000 seedlings.

One of the district's most ambitious projects was sponsoring the Envir-olympics, a day-long outdoor competition for high school students that featured five categories of environmental studies: forestry, soils, aquatic life, wildlife, and current environmental issues.

The Envir-olympics in Pennsylvania has caught on in other States, and the first national "Envirothon," was held this past year. (See article below.)

Both first and second place conservation districts-of-the-year will receive a recognition plaque at the NACD convention in Salt Lake City, Utah, in February 1989.

Each of the other seven regional teacher and district winners will receive $200 and an award plaque.

The annual NACD/Deutz-Allis Conservation Education contest is open to all full-time classroom teachers, grades K-12, and to all conservation districts. Teacher nominations must be endorsed by the conservation district, and nominations must be submitted to the conservation district each year by March 1.

Inquiries about the program and nomination forms should be addressed to Malcolm Crooks, Program Coordinator, NACD, Box 297, Solebury, PA 18963.

Seven regional teachers and regional districts are chosen each year from which the finalists are picked and awarded various cash prizes and plaques. A certificate is presented to each State winner.

Additional questions about the program should be addressed to the National Association of Conservation Districts, 509 Capitol Court, N.E., Washington, DC 20002.

First National Envirothon Held In Pennsylvania

"CONSERVATION starts with a personal commitment," Dean Steinhart, director of Pennsylvania's Office of Environmental Education, told competing teams of high school students at the First National Envirothon in October 1988 at King's Gap Environmental Center in Carlisle, Pa. "Today's public reacts to environmental problems with their emotions, not with the facts." said Steinhart. "You must learn to search for the facts."

Three teams of five students and a faculty member from Pennsylvania, Massachusetts, and Ohio competed in the First National Envirothon. Each team was chosen from county team competitions conducted in each State.

Each team was presented with a problem–choosing a site for a landfill. In choosing a site, the teams had to gather information on soils, water, plants, and wildlife. They visited an existing landfill to learn how it worked and analyzed the soil. They visited a fish hatchery and analyzed water quality to see if the nearby landfill was affecting it. They talked to scientists, engineers, biologists, and other experts who had volunteered to participate in the Envirothon.

The final test was delivering an oral report justifying their choice for the landfill site to a panel of judges from the U.S. Department of Agriculture's Soil Conservation Service and Forest Service, the National Association of Conservation Districts, the Pennsylvania Department of Environmental Resources, and Pennsylvania State University.

The Pennsylvania team placed first. At the awards banquet, Pennsylvania Secretary of Environmental Resources Arthur Davis told the students their generation faces major environmental problems. "However," he continued, "after what I've seen and heard today, the environment is in good hands as long as decisions are based on facts as they have been today."

The Second National Envirothon will be held in Massachusetts in 1989.

Fred Bubb, public affairs specialist, SCS, Harrisburg, Pa.

NEWS Briefs

Outdoor Classroom Established

WHEN WESTERN Kentucky University made available a 20-acre wooded site for an outdoor classroom, the entire community turned out to help. University volunteers identified and marked more than 30 species of trees and shrubs; a local contractor donated time and equipment to install a pond; and the garden club provided and installed bird nesting boxes along the 1/2-mile hiking trail.

"We realized we were living in one of the best agricultural areas in the State and our young people were learning very little about it or about natural resource conservation," said Pete Dotson, an assistant professor of agriculture at Western Kentucky University and a district board member of the Warren County Conservation District. "Students weren't learning enough about protecting our soil and water and the wise use of our forests."

The idea for an outdoor classroom came when a local committee was formed of representatives from such groups as the Warren County Board of Education, FFA, the Bowling Green Women's Club, the Kentucky Division of Conserva-tion, the Kentucky Division of Forestry, and the Soil Conserva-tion Service to address these conservation education needs.

The Tennessee Valley Authority contributed $17,000 through a 3-year grant, which is being used in part to purchase bleachers and a podium for a group instruction area, pave hiking trails, and construct a bridge over the pond. A 4-acre conservation tillage plot was established adjacent to the outdoor classroom to show students erosion control methods for croplands.

The site is maintained through a scholarship provided by the Warren County Kentucky Conservation District to a university student studying environmental or conservation issues.

The classroom is presently being used by local elementary and high schools and university students for aquatic studies, soil classification, soil testing, and other environmental/agricultural studies.

Fred Alcott, district conservationist, SCS, Bowling Green, Ky.

New Curriculum Supplement Being Developed

"PROJECT FOOD, Land, and People," a third curriculum supplement following the format of "Project Learning Tree" and "Project Wild," is being developed for grades K-12. The project will include activities for teachers and youth leaders to use with their students or groups. A key concept of the project will be the dependence of food production upon natural resources. It will also examine how our food supply system works, from the farm to the table.

The steering committee managing the development of "Project Food, Land, and People" includes representatives of several State departments of agriculture and State departments of education; four universities; the U.S. Department of Agriculture's Ag in the Classroom Program and Soil Conservation Service; the American Farm Bureau Federation; the American Farmland Trust; the Agriculture Council of America; the National Association of Conservation Districts; and private businesses such as General Mills and Rodale Press. Several classroom teachers and school administrators are also serving on the committee. Classroom teachers will be involved in developing the curriculum supplement and teacher in-service training. The steering committee expects the project to be completed by 1992.

For further information on "Project Food, Land, and People," contact Chris Williams, Steering Committee Chairman, USDA Soil Conservation Service, 201 E. Indianola Ave., Phoenix, AZ 85012, or Daniel O. Parker, Steering Committee Vice Chairman, Colorado Department of Natural Resources, State Soil Conservation Board, 814 Centennial Building, 1313 Sherman Street, Denver, CO 80203.

Puppet Teaches Children About Soil

WHAT CAN you learn from a worm? Not the kind of worm you put on a hook to drop in the water but a fuzzy brown one with a big mop of bright yellow hair. His name is Sammy Soil Saver. Mostly, he talks about soil and conservation, and younger students seem to learn quite a lot from him. They write letters to him inviting him back to their schools.

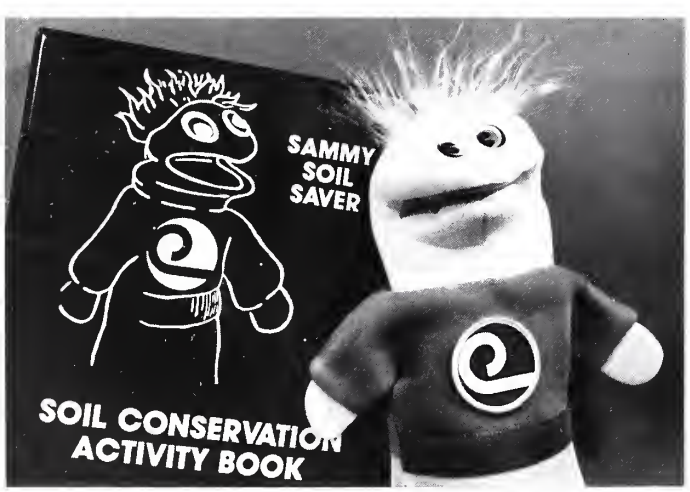
Mona Ray, conservation specialist in Virginia Beach, Va., won't leave home without the puppet. "Many children have an 'I don't live on a farm' attitude and they don't understand how important conservation is," she explained. "With Sammy's help, they learn how foods they like, including pizza, come from soil and water. As they learn, Sammy learns, and everyone is entertained."

Ray, with Sammy's help, has spoken to more than 200 groups of students in the first through sixth grade in her district's 78 elementary schools.

The puppet kit was designed by the South Dakota Association of Conservation Districts, and is now being distributed by the National Association of Conservation Districts Foundation. The kit includes six laminated scripts, tips on puppeteering, and an activities section for each script. Also available is a lightweight, portable theater stage designed by the Wyandotte County Conservation District in Kansas City, Kans. This easily constructed stage, with carrying case, can be ordered directly from the Wyandotte County Conservation District.

For further information, contact the Conservation Districts Foundation, 408 E. Main, P.O. Box 776, League City, TX 77574-0776. For further information on the portable stage, contact Wyandotte County CD, 1709 North 98th Street, Kansas City, KS 66111.

Dana Farver, assistant to the director of communications, National Association of Conservation Districts, League City, Tex.



Sammy Soil Saver is visiting school children around the country to tell them how important soil is and what can be done to protect it.

USDA and Education Work Together

THROUGH a memorandum of understanding signed this past summer, the U.S. Department of Agriculture and the U.S. Department of Education are joining together to help teach students about conservation and make farmers more aware of the conservation provisions of the 1985 Farm Bill (the Food Security Act of 1985).

Under the agreement, the Soil Conservation Service will provide technical assistance in conservation planning and natural resource management to vocational agricultural instructors and students. This will include providing information on soil and water conservation to agricultural education publications and groups such as FFA, and the National Vocational Agriculture Teachers. The Department of Education and SCS will also jointly sponsor group conservation planning meetings, providing practical training to agricultural students.

In turn, students will be helping SCS in helping farmers develop conservation plans for their highly erodible cropland. The plans need to be completed by the end of 1989 and implemented by the end of 1994 in order for farmers to stay eligible for USDA program benefits.

SCS Receives Awards

THE SOIL CONSERVATION Service won two awards at the world's largest indoor flower show held in Philadelphia, Pa., March 6-13, 1989. The Garden Club Federation of Pennsylvania presented SCS with a silver plate for the exhibit itself and a blue ribbon for excellence in education.

The SCS exhibit illustrated soil loss and water quality degradation over three centuries in a Central Atlantic Region setting. The exhibit was the combined effort of the SCS Northeast National Technical Center in Chester, Pa., SCS National Headquarters, the States of Pennsylvania and New Jersey, and conservation districts. Seventy-two SCS employees and retirees as well as conservation district employees worked 4-hour shifts as volunteers during the show.

The flower show was sponsored by the Pennsylvania Horticultural Society. Approximately 240,000 people attended the show of more than 550 exhibits covering 6 acres inside the Philadelphia Civic Center. Thousands of urban and suburban land users and students took home copies of SCS publications on conserving soil, water, and wildlife.

Ted Kupelian, public affairs specialist, SCS, Washington, D.C.

Activity Guides Developed

ELEMENTARY SCHOOL students in Nebraska will soon be taught to "Stop, Look and Learn About Our Natural World." That's the title of a collection of 113 conservation learning activities that the Nebraska Department of Education is distributing this year.

The learning activities are designed to promote conservation awareness, understanding, and action among students in kindergarten through the sixth grade. Teachers' guides for conducting the activities will be distributed through a series of workshops to every elementary school in the State. Individual teachers will be encouraged to incorporate the activities into their current courses and individual teaching styles.

The materials are divided into three levels (grades K-2, 3-4, and 5-6), with 30 to 50 activities each. Each level has activities on soil, water, plants, wildlife, and trees. The fifth and sixth grade level also has activities on energy.

Development of the materials was a cooperative effort by the Nebraska Department of Education, the Nebraska Natural Resources Commission, the State's Natural Resources Districts, and the Soil Conservation Service of the U.S. Department of Agriculture. The materials were compiled from a variety of sources by the University of Nebraska–Lincoln, Department of Agricultural Education.

Pat McGrane, public affairs specialist, SCS, Lincoln, Nebr.

Backyard Wildlife Habitat

TWENTY-TWO Ingomar Attendance Center students in New Albany, Miss., came to John DeFazio's aid recently. The third through sixth grade gifted class constructed a backyard wildlife habitat model for DeFazio, a Soil Conservation Service wildlife biologist, to use when teaching landowners how to create a natural home for wildlife.

In designing the habitat model, the students used the National Wildlife Federation's Gardening with Wildlife Kit. The kit includes information on planting an oasis for wildlife as well as easy-to-use-planning-tools, colorful guides for attracting and feeding birds, and a wildlife gardener's journal.

The eager landscape architects included southern magnolia, the State tree, in their project along with other grasses, shrubs, and trees that provide food and cover for birds. Teacher Gloria Turner said the project made the students more aware of the needs of wildlife and helped them learn to appreciate wildlife more.

For more information about starting a backyard wildlife habitat area contact: National Wildlife Federation, 1412 Sixteenth Street, N.W., Washington, DC 20036-2266.

Moving?
Send present mailing label and new address including zip code to:

U.S. Department of Agriculture
Soil Conservation Service
P.O. Box 2890, Room 6004-S
Washington, D.C. 20013-2890

Official Business
Penalty for private use, $300

BULK RATE
POSTAGE AND FEES PAID
USDA-SCS
WASHINGTON DC
PERMIT NO. G-267

Where Can You Find More Information?

BELOW IS a partial listing of organizations that can provide a variety of conservation education materials. Write to them for more information. Many of the organizations belong to the Alliance for Environmental Education., Box 1040, 3421 M Street, N.W., Washington, DC 20007

American Association of Zoological Parks and Aquariums
Oglebay Park
Wheeling, WV 26003

American Federation of Teachers
10311 East 42nd Street
Kansas City, MO 64133

American Forestry Association
1516 P Street, N.W.
Washington, DC 20005

American Forestry Council
(Project Learning Tree)
1250 Connecticut Avenue, N.W.
Washington, DC 20036

American Nature Study Society
Rye Nature Center
P. O. Box 435
Rye, NY 10580

American Society for Environmental Education
40 Orange County Marine Institute
24200 Dana Point Harbor Drive
Dana Point, CA 92629

Center for Environmental Studies
1725 De Sales Street, N.W., #500
Washington, DC 20036

Conservation Education Association
Tennessee Valley Authority
1B35 Old City Hall
Knoxville, TN 37902

Conservation Film Service
404 East Main Street
P. O. Box 776
League City, TX 77573-0776

Council for Education Outdoors
Box 2000
Cortland, NY 13045

Keep America Beautiful, Inc.
Mill River Plaza
9 West Broad Street
Stamford, CT 06902

National Arbor Day Foundation
100 Arbor Avenue
Nebraska City, NE 68410

National Association of Biology Teachers
11250 Roger Bacon Drive
Reston, VA 22090

National Association of Conservation Districts
509 Capitol Ct., N.E.
Washington, DC 20002

National Audubon Society
950 Third Avenue
New York, NY 10022

National Council for Geographic Education
Department of Geography
Western Illinois University
Macomb, IL 61455

National Education Association
1201 16th Street, N.W.
Washington, DC 20036

National Wildlife Federation
1416 Sixteenth Street, N.W.
Washington, DC 20036-2266

New York State Outdoor Education Association
BOCES Outdoor/Environmental Education Program
P. O. Box 604
Smithtown, NY 11787

North American Association for Environmental Education
5995 Horseshoe Bend Road
P. O. Box 400
Troy, OH 45373

Project Wild
Salina Star Route
Boulder, CO 80302

Soil & Water Conservation Society
7515 N. E. Ankeny Road
Ankeny, IA 50021-9764

USDA Photography Division
Room 4407 South Building
Office of Governmental and Public Affairs
Washington, DC 20250

Western Regional Environmental Education Council
2820 Echo Way
Sacramento, CA 95821